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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,637	05/18/2005	Tomoaki Abe	CU-4117 RJS	9550
26530	7590	06/06/2007		
LADAS & PARRY LLP 224 SOUTH MICHIGAN AVENUE SUITE 1600 CHICAGO, IL 60604			EXAMINER PATEL, VISHAL A	
			ART UNIT	PAPER NUMBER
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			06/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/527,637	Applicant(s) ABE ET AL.	
	Examiner Vishal Patel	Art Unit 3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-16 is/are pending in the application.
- 4a) Of the above claim(s) 13 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-12, 15 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/20/05, 2/23/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of specie I in the reply filed on 12/22/06 is acknowledged. The traversal is on the ground(s) that all claims read on the elected species. This is not found persuasive because as stated in claim 13-14 an inner edge portion where the inner side surface of sliding projection and the sliding surface are joined to each other is formed into a curved surface, and the sliding surface has an inner curved surface sliding portion which is jointed to the inner surface of the sliding projection and formed into a gently curved surface. Theses claims do not read on the elected species and are withdrawn.

Claims that are elected are claims 7-12 and 15-16. Claims that are withdrawn are claims 13-14.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 7-10 and 15-16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Phillips (US. 2,712,971).

Phillips discloses an oil ring formed into cross-section substantially of an I-shape (oil ring of Phillips in figures 1 and 5) that two rails are connected at a columnar portion thereof, a sliding projection formed in each of the two rails comprises an outer side surface (outer side surface that

Art Unit: 3673

faces 7) of sliding projection which forms an outer portion (outer portion of the outer side surface) of the sliding projection, a inner side surface (surface opposite the outer side surface) of sliding projection which forms an inner portion (inner portion of the inner side surface) of the sliding projection, and a sliding surface (surface that is capable of sliding on member 1) which slides on a cylinder inner wall (e.g. 1) and forms a tip end (e.g. tip end having the curved surface 16) of the sliding projection, a taper angle of the outer side surface of sliding projection is in a range of 10 to 60 degrees (fig. 5, e.g. top surface 13), an outer edge portion (edge portion of the tapered surface formed on the outer side surface), the outer side surface of sliding projection and the sliding surface are joined to each other (fig. 5), is formed into a curved surface (e.g. 16), and the sliding surface has a curved surface sliding portion (e.g. 16) which is joined to the outer side surface of sliding projection and formed into a gently curved surface (e.g. 16). The sliding projection has a radial width.

Regarding claims 9-10 and 15-16: The curved surface sliding portion and the inner side surface of sliding projection are joined to each other (fig. 5). A taper angle (fig. 5, angle of bottom surface 13) of the inner side surface of sliding projection is in a range of 0 to 30 degrees.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips.

Art Unit: 3673

Phillips discloses the claimed invention except that the radial width is in the range of 3 to 100 micrometer. Discovering an optimum range of a result effective variable involves only routine skill in the art. In re Kulling, 895 F.2d 1147, 14 USPQ 2d 1056. Without the showing of some unexpected result. Since applicant has not shown some unexpected result the inclusion of this limitation is considered to be a matter of choice in design. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the radial width to be in the range of 3 to 100 micrometer as a matter of design choice and to provide mechanical expedience.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Katumaru et al, Shunta and Berti et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is 571-272-7060. The examiner can normally be reached on 6:30am to 8:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia L. Engle can be reached on 571-272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 3673

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP

May 28, 2007

A handwritten signature in black ink, appearing to read 'Vishal Patel', with a stylized flourish at the end.

Vishal Patel
Patent Examiner
Tech. Center 3600